ACEC

ST RUNS IBM

80 COLUMNS FOR XE/XL

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This newsletter is distributed for the current ACE of Columbus membership. Dues are on an annual basis and entitle the members to all club benefits (Newsletter, Disk or Tape of the month, group discounts, etc.). Monthly meetings, at DeSales High School (Cafeteria) on Karl Road are also open to nonmembers.

Upcoming meeting dates at 7:30 pm are:

May 12

June 9

July 14

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NEW LIBRARY ITEMS

We have had several new items donated to the A.C.E.C. publications library in the past month and I urge you to continue your fine support. (Please remember that A.C.E.C. membership is necessary to be able to borrow library items.) We are starting to receive an occasional duplication of some of the more recent issues of "ANTIC" and "ANALOG" and that's GREAT!

In addition to several "COMPUTE!" magazine back issues, we have added:

Mostly BASIC: Applications for Your ATARI, by Howard Berenbon, Books I & II.

KIDS AND THE ATARI, by Edward H. Carlson.

Many thanks for your interest in your library. (See Bill Morgens to borrow or contribute library materials. Thanks for a fine job Bill - Ed)

SIG Notes
by Dr. Warren Lieuallen

The last meeting of the ACEC Special Interest Groups went without a hitch, or at least I assume they did as I haven't heard anything about them to indicate otherwise! Sorry I couldn't be there, but as many of you know, I was "unavoidably detained" at OSU Hospitals.

I am still in the midst of searching for a new location for the SIG meetings. Possibilities at the present include: Chemical Abstracts Service, on Olentangy River Road; a new youth-center, in New Albany; the OSU Veterinary Hospital; one of the public libraries (either Grandview Heights or Columbus). As of the time when this was written (April 5th), I have no final answer, so the next meeting place and time will be announced at the ACEC meeting tonight (April 14th), as well as placed in messages on as many bulletin boards as I can get logged on to in the next week or so. I will do my best to adhere to our usual meeting time of the fourth Thursday of each month, at 7:30 p.m.

Items for discussion at the next meeting, wherever it is, can range from 80 column software drivers, programs, and hardware additions, to the newer 256K modifications to the 800 XL and 130 XE, the 1040 ST, to a data base comparison.

If anyone has any ideas or suggestions for demonstrations, or would like to give a short demo themselves, please contact me immediately!! At some future meeting, I would really like to hear from someone who has actually performed and used the 130 XE-compatible 800 XL upgrade, and could perhaps give a demo to the clumsy amongst us as to how to proceed with the electronic surgery.

Well, that's about all for now. Keep those cards and letters coming, and stay tuned for new developments!

THE UNLOST FILE

When you get a lot of programs or files on your disk. It can be very hard to keep track of them. As a result you can make a lot of mistakes. One of those mistakes is to delete the wrong file. Now many people may think that is a fatal error. That once you have deleted the file,it is gone forever,but this is not true. When you delete a file from a disk the file and it's data are not erased. The data is still on the disk. Even though you don't see it. It is still there.

I will try to give a little insight into how the disk operating system (DOS) works. There are several sectors on the disk which are not available to the user. These are the DOS sectors used to run the DOS system. One of these sectors is sector number #360. It is used as the Volume Table Of Contents (VTOC). This sector contains a table of all the sectors. Each sector has a code number assigned to it. If the code is a zero then this tells the DOS system that the sector is in use. If it shows a one then the sector is available to use. When you either save a new file or add to an existing one; the DOS system will check the VTOC and see which sectors are available. The sectors are used in numerical order from low to high. When the DOS system uses a sector it will change it's code in the VTOC so that the sector will be shown as in use and not used again. This way your data is not erased. Sectors 361-368 is the directory. Data that is saved here is the actual name of the file. Then there is starting sector number of the file. Then there is the length of the file in sector numbers. Then there is the flag byte for each file. The flag byte tells the DOS system what type of file it is. It can be one of 5 different file types. If the byte is a zero then that file has not been used yet. If the byte is a $40 (hex) then it is a normal file. If it is a $41 (hex) then the file is an open file (either in use or there is a problem with it). If the code is a $60 (hex) then the file is locked, finally if the code is a $80 (hex) then the file has been deleted. When you add a new file to your disk the DOS system will add it's name to the directory sectors so that it can keep track of it. When you request the directory listing for the files on your disk the DOS system will check the

directory sectors for it's data. It will check the flag byte for each file name it finds. If the flag byte is a 40 hex for a normal file or a 60 hex for a locked file. Then and only then will the File name will be shown for you to see. The other files it finds (either deleted or opened) will not be shown. When you save a new file to the disk, the DOS system will check each file listing in the directory. If it finds a directory listing with a 80 hex for a code (deleted). It will use that listing for your new file. I will try to give you an example. Lets say that you have 30 files on your disk. You decided to delete the 5th file. Now you decide to add a new file to that same disk. When the DOS system goes into the directory sectors. It will find the 80 hex flag in file #5. Since that file has been deleted. The DOS system will store the data for your new file in the listing for file #5. As a result your new file will now become the 5th one. The listing for the old 5th file will be gone.

When you delete a file from a disk you do not physically erase it.The file and it's data is still there. What happens is this: The DOS system will go into the directory sectors and find the data for the file that you want deleted. It will change the flag byte for your selected file so it will now read 80 hex, which means it is deleted. Then it will go into the VTOC and find the sectors that belong to that file. The DOS system will change the code within the VTOC for those sectors. The sectors will now be shown as being available for use. I will try to use another example. Lets say that you have 30 files and 400 sectors in use on a disk. File numbers 0-39 plus sector numbers 0-399 are unavailable. Yesterday you deleted the 1st file on your disk. It was 20 sectors long and started at sector #20, so it took up sectors 20-39. File #0 (your 1st file)was marked as deleted. The VTOC was changed to show sector numbers 20-39 as being free. Now today you save a new 20 sector file to that same disk. You would think that it would be your 40th file. Also it would start at sector #401 on your disk. Since the 1st file was deleted your new file would become the new file #0. Also since sector numbers 20-39 are being shown as available and the DOS system uses the sectors in numerical order. Your new file would use sector numbers 20-39. This way that one directory listing would not be wasted. Neither would be the 20 sectors. This way you get full use of the 64 directory listings. Also the 707 sectors that you started with.

As you can see the DOS system does not automatically erase a file that you delete. It just marks the directory listing and the it's sectors as being free to use. If you would save a new file to that disk there is a good chance that your file will be lost. The normal Dos system can't recover a deleted file for you. There are programs available that can. The program DISK FIXER from APX will recover a deleted file for you. This is one that I wrote a review on in an earlier paper. DOSWIZ.BIN is another program that will do

it to. This program is available on the disk of the month. There is another program from the disk of the month. I think it is called undelete.bas. I have never used this one so I can't comment on it. I have used the first two programs and know they work. If you do ever delete a file by accident and want it back and don't have any of these programs. Put that disk off to the side. You can load a program from that disk, but don't save anything to it. If you do you may loose the file or the sectors used by the file you wanted. Set the disk off to the side and bring it to the meeting. I will be glad to try and get your file back for you. I won't guarantee success, but I don't ever remember not being able to recover a deleted file. Ask around the group I am sure there are others who will have those programs that i mentioned. I am sure they would be glad to try and help you, also check the disk library for those DOM programs also. You might can pick them up yourself and have them handy. Just in case you do need them.

I hope that I have given you a little hint into how the DOS system works. I hope that you will find this information useful. Just remember that if you have a disk with a deleted file that you want back. Don't save anything to it and you will find that you can get your file back

by CHARLES W. BROWN

ST NEWS AND REVIEWS

ST Dealers have had great praise for the ST system's sales since its debut this past summer. Here is what they had to say:

"We've sold over 100 ST's in 60 days!" Xanth Computer Systems, Seattle,Wa.

"The 520ST is outselling the Amiga 2 to 1... and it is the easiest machine to sell in the store." The Bit Bucket, West Newton, MA.

"I'm on my 4th shipment already -- my salesman and I have bought ST's for ourselves, too!" Paradise Computers, San Luis Obisbo, CA.

"We moved 12 units in 48 hours," ComputerLand, Los Angeles, CA.

"We have sold over 200 ST systems to date in two stores... We couldn't have chosen a better computer line," Electronics Connexion, Kettering, Troy, OH.

ST PERIPHERAL UPDATE

Double sided ST drives are here! The SF314 drives store over 725,000 bytes of information at a suggested list price of $299.95. The drives are in plentiful supply and have been available for some time. They can read and write in either single-sided or double-sided formats so they are compatible with all software made for the SF354 single-sided drives.

ST monitors are now available separately! Any ST owner who wants to add a new monitor to their system can now purchase either the SM124 High-Resolution Monochrome monitor (suggested price of $199) or the SC1224 RGB Analog Color monitor (suggested price of $399). Now ST owners can have the best of both the dazzling colors and the sharpest monochrome display available anywhere.

ATARI SOFTWARE PREVIEW

The Manager is coming! This is one of the most impressive database management systems we have ever seen. Its features include on-screen forms with automatic error checking, sophisticated report writing, the ability to link different database files together (so your invoice file talks to your inventory, etc.), and even a simple programming language for greater flexibility. There are literally thousands of pre-designed templates for all applications fromsmall business accounting to stamp collecting, from personal filing to magazine fulfillment, that can be easily customized for anyone's own needs.

ST DEVELOPMENT KIT AVAILABLE

Complete documentation and development software is available direct from Atari Corp. This package includes over 4000 pages of information on ST hardware and software including chip specifications, GEM VDI and AES calls, a guide to BIOS entry points including the source code, a BDOS and GEMDOS guide, intelligent keyboard specs, and printer specs. Five disks full of software include a C compiler, assembler, linker, resource construction set for building GEM menus, EMACS editor, and utilities. This is the complete package that is being used by hundreds of ST developers worldwide. To obtain this package, send $300 to Atari Corp., 1196 Borregas Avenue, Sunnyvale CA 94086, Attn: Richard Frick.

NO HOLDS BARRED COMPARISON

We are constantly asked to give a comparison between our ST and the competition. You asked for it, you've got it!

CPU SPEED: The ST runs at 8.01 million cycles per second (or 8.01 megaHertz). Macintosh is second at 7.78 meg,

Amiga next at 7.16 meg, and IBM PC/AT at only 6.00 meg. 8-bit computers like the Commodore 128 run at only 2 meg. The cpu speed determines the speed at which programs can calculate and make decisions.

MONOCHROME VIDEO DISPLAY: The ST can display 640 pixels per line and 400 lines in high resolution monochrome. The Macintosh displays 540 by 340, roughly two thirds of the number of pixels. The IBM PC/AT has 640 by 200, only half the ST's resolution. The Amiga has no monochrome mode, nor does the Commodore 128.

COLOR VIDEO DISPLAY: The ST has two color modes, 640 by 200 with four colors and 320 by 200 with 16 colors available -- colors may be selected from the 512 that the ST system can generate. The Macintosh has no color capability. The IBM PC/AT has a 320 by 200, four color mode. With the IBM system you can purchase the EGA setup to get 640 by 350 with 64 colors, but the cost of this add-on is more than for an entire ST system with drive and color monitor! The Amiga can go up to 640 by 400 in color by using a flickering interlaced display only, or 640 by 200 to get a stable picture, with up to 32 colors visible at a time.

SOUND AND MUSIC: The ST includes a 3-voice sound chip with a range from 30 Hertz to beyond the 20,000 Hertz audible limit. The Amiga has a 4-voice system which is limited to only 7,000 Hertz.

FLOPPY DISK ACCESS: The ST has been measured to access the disk at between 40% and 50% faster than the IBM PC/AT. The disk speed is several times faster than the Macintosh or the Amiga.

DMA/HARD DISK ACCESS: The ST dma port is capable of moving up to 1.33 megabytes of data per second -- this is so fast that there are no hard disks available that can go that fast! No other computer has a comparable port.

PRICE: The 520ST system retails for $799 with monochrome monitor or $995 with color. This price includes a floppy disk drive and monitor, with standard equipment including both parallel and serial ports, mouse, joystick ports, floppy disk controller, and MIDI interface. A comparable Amiga color system is $1995, including an extra 256K (to bring the RAM up to 512K) and with the RGB color monitor, without any MIDI port. A Macintosh system (without color, of course) is over $2000, also without MIDI. And the IBM system with bit-mapped color graphics and I/O ports is well over $3500.

ST TECHNICAL FACTS

THE FASTEST INTERFACE FOR A PERSONAL COMPUTER is the ST's "hard disk port". This is actually a

direct-memory-access (DMA) interface that provides communications at an unprecedented 1.33 million bytes per second for a variety of devices. Aside from the hard disks that Atari will produce (with the 20-megabyte model scheduled to retail for $700), this port will accomodate high performance add-ons like the D ROM, coprocessors, high-speed hard copy peripherals, and local area networks.

THE ST SYSTEM WAS DESIGNED TO BRING THE FULL POWER OF THE CPU TO YOU. Of the major 68000 systems (and we include Apple's Mac and Commodore's Amiga), the ST personal computer system is the ONLY one that runs the cpu chip at its full 8 megahertz. In addition, the system architecture of the ST ensures that the cpu can run constantly and is not bogged down by graphics or input/output. While the Amiga claims that the cpu does not have to intervene when their machine performs graphics, what they don't tell you is that many graphic and blit operations effectively turn the cpu OFF -- the cpu doesn't intervene, it just goes to sleep! Technically this is known as putting the cpu into a wait state.

On the ST, the special video and i/o circuits give the cpu the ability to work during other operations. After all, what is a computer really used for -- processing (by the cpu) and communications with other devices (i/o), which is precisely where the ST's hardware shines -- it is much faster than even much more expensive machines like Apple's Lisa and the IBM PC series.

FOUR CUSTOM CHIPS enhance the ST's cpu power. The DMA chip (short for Direct Memory Access) makes disk accesses to both the floppy disk and the hard disk port instantaneous as far as the cpu is concerned. The video shifter, memory manager, and "glue" chip work in concert to make sure the system timing is synchronized together so the graphics operations take no time from the cpu either -- in fact, the ST RAM chips are operated twice as fast as the cpu can access them, so the video chips can access them in between cpu accesses.

THE ST IN THE PRESS

The Jeffries Report, a respected industry newsletter, chose the ST over the Amiga and even the IBM in a head-to-head comparison. Some juicy quotes:

"The big difference between the Atari ST and the Amiga are price and availability. A 512B Atari color ST at $999 costs about $1000 less than a similar Amiga configuration."

"Consider: IBM sells an Enhanced Graphics Adapter (EGA) display card for the PC. The basic card costs $524, while a fully-expanded EGA card is $982. Oh yes -- you also need

IBM's 5154 enhanced color display which costs another $849. So a "maxed out" EGA bit-mapped display for an IBM PC costs around $1,800 -- pretty steep compared with the color Atari 520ST system at $1,000, that includes a 512KB computer, a disk drive, color display, and even a mouse."

"If you study the Amiga chip design, it is obvious that they intended this to be a super fancy video game machine... That's the nub of the Amiga vs. Atari confrontation: Amiga was designed three years ago as a $700 hot video game home computer. When that market went South, they scratched their heads and decided to "reposition" their video game computer as a serious business computer. Good luck."

"An Atari ST with a fast 68000 processor, a whopping 512KB of RAM, a cute little 3.5 inch disk, excellent bit-mapped display, friendly GEM user interface, and optional CD-ROM 550 megabyte optical disk with an interactive encyclopedia sounds like exactly what the market needs. Contrast this with the Amiga, which costs almost twice as much! Sure, up-scale Yuppie types may not care about a price difference of $1000 (if it costs more, it must be better, right?) but the vast majority of individuals and small businesses do care about price.

John Dvorak in InfoWorld: "I recently got to play with an Atari 520ST and found it to be a super little machine for the money. The keyboard felt good and the new teflon-lubricated mouse felt great. If I were to look at the Atari 520ST and the Amiga and choose the winner in a head-on battle, I'd have to pick the Atari. The Amiga simply doesn't offer that much more performance or features. Also, the techies seem to be headed toward the Atari."

More John Dvorak in the San Francisco Examiner: "A battle is brewing between the Amiga computer... and the Atari 520ST. I pick Atari as the winner in this fight... The primary influence peddlers are voting against the Amiga...I know at least three people who have quit their jobs to work on software for the Atari. One person I know folded his newsletter so he could concentrate on software for the Atari... I'm voting with him."

Bruce Webster (Byte columnist) on the Byte Information Network: "In my January column I picked the 520ST to be the big winner of 1986 because of the price/performance combination."

Jeff Markoff in the San Francisco Examiner: "The 520ST's readily apparent strong point is speed. Compared to the Macintosh, working with the 520ST is extraordinary."

Personal Computing says: "The ST is noticeably faster than the Macintosh, not only because of the faster clock rate

but also because it has a faster disk drive."

And Family computing adds: "With the impressive 520ST, Atari has delivered on its promise of "power without the price."

The Writer's Tool
by Dr. Warren G. Lieuallen

The Writer's Tool, by OSS, Inc. is one of the newer word processors available for the 8-bit Atari computers, and luckily is also one of the better ones. The program is supplied in two parts, a ROM cartridge and a floppy disk, and also includes exhaustive documentation (tutorial, reference guide, and a quick reference card), bound in a classy yellow binder.

The Writer's Tool functions through a variety of menu and sub-menu systems, which include Search, Disk I/O, Print, and several External Functions. Many of these system menus are very easy to use, and contain important information about the program and the text file being edited, such as number of words, total length in bytes, cursor location, printing format values, etc.

When booted on an Atari 800 XL, the program leaves 23,219 free bytes in RAM. This is the equivalent of nearly 15.5 double-spaced pages. Text entry is very similar to any word processor program--you simply enter the text from the keyboard, and let the computer worry about margins, spacing and the like. Both "typeover" and "insert" text entry modes are supported, with different cursors so each can be easily distinguished. Numerous text formatting commands are available, such as: automatic line centering, hard spaces and soft hyphens, headers and footers, margin justification, etc. Other printer specific features include: italics, bold-face, underlining, double-width printing, sub- and super-scripts, and more. One nice feature is the inclusion of "triple-printing" for sub- and superscripts, in which the characters are printed full size, and either lowered or raised one-half line. This may not sound like much, but no other program that I am aware of does it, and it really does look nice on the printed page.

Many of The Writer's Tool's printing commands take some getting used to, as they are distinctly different from other word processors you may be familiar with. This is not necessarily bad, just different. First of all, there is no direct way to control the top and bottom margins; headers and footers containing blank lines must be used to leave some "white space". Secondly, The Writer's Tool will begin and

end printing wherever the printer happens to be on the page; page ejects must always be forced at the end of the document, and the paper alignment is slightly more crucial at the start of a document. However, these differences are quickly accomodated (and will not be noticed at all if The Writer's Tool is your first word processor), and should not hamper anyone in the use of this program.

Perhaps more importantly, the print preview function is present, but somewhat limited. Activated by a command from the Print System menu, only the left 38 columns are visible, with no screen scrolling available. While still useful to judge placement of material on the printed page, this feature is more limited than in other programs.

Although not mentioned in the documentation, an added bonus is the ability to include graphics within the body of your text. With a special "link-printing" command, any file(s) with the extender ".GGG" will be included byte-for-byte as graphics data, if your printer can handle it. Although not included with my copy of the program, a graphics driver to convert graphic files from Koala Pad, Touch Tablet, B/GRAPH, etc. is now available from OSS. Unlike some other programs, by including one byte to tell The Writer's Tool the size of your graphic, the page formatting will not be disturbed, and multiple graphics may be included anywhere within your text, with no additional modifications required!

One of the External Functions available is the spelling checker. This feature alone make The Writer's Tool a stand-out word processor. The spelling checker, which includes a 20,000 word dictionary, is one of the slickest I've seen. It begins by first alphabetizing your text file, and then searches through the dictionary. This process eliminates looking up repetitions of the same word, and greatly decreases the amount of disk access, since everything is alphabetized. Many options are available to add to the dictionary by creating your own personalized dictionary, mostly through a separate External Function called, appropriately enough, Dictionary Management.

A "Mail-Merge" feature is also available, which accesses the mini-Data Base included with The Writer's Tool! Multiple fields and records are easily created and edited to serve a variety of needs.

There are still lots of features to The Writer's Tool--this is one of the more powerful word processors available for the Atari Computer Systems. If anyone missed the demonstration at the February meeting, or would simply like more information, just contact me. I'd be happy to discuss The Writer's Tool at length, and can certainly have a complete demo at a SIG meeting sometime.

ANTIC'S EUROPEAN ATARI REPORT
PART 1: LONDON BULLETIN
BY GIGI BISSON, ANTIC ASSISTANT EDITOR

Antic Publisher James Capparell and Marketing Director Gary Yost have returned from a tour of three European Atari computer shows including the largest computer show in the world, West Germany's CEBIT -- otherwise known as the Hanover Fair.

THE IBM-ST

Real MS-DOS compatibility is finally a reality for the Atari 520ST. At an Atari computer show sponsored by Atari User magazine in London, Atari Corp. unveiled a product in the final development stages code-named the MS-DOS Box.

Designed by Atari engineer Jim Tittsler, the MS-DOS box is essentially an 8088 microprocessor encased in a metal box like a hard disk drive and plugged into the DMA port. It comes with half a megabyte of memory, an 8088 microprocessor and a socket for the 8087 math co-processor.

During a tour of three major European computer shows including the Hanover Fair in West Germany, Antic publisher Jim Capparell saw the ST running MS-DOS and Multiplan. Atari Corp. claims the MS-DOS box will enable the ST to be compatible with 90% of IBM-PC software at speeds greater than the IBM PC. However, Tittsler says the box won't be able to run graphic-based software such as Lotus 1-2-3 until the final BIOS routines are written.

The MS-DOS box also offers significant potential for true multi-tasking ability or high-speed graphics on the ST. By using the 8088 and 8087 as co-processors for the ST, there is a possibility of using them to process data for graphic screens while doing a separate task with the 68000 microprocessor. The projected retail price is about $300.

Atari also announced a CP/M operating system emulator in software that should soon be available in the United States for $49.95. At the London show, Antic saw libraries of CPM software already transferred to ST disk format.

PRODUCTS AND PROMISES

For the eight-bit Ataris, the most significant new product was the long-promised 80-column adapter that plugs into the

XL or XE computer. Atari had originally promised an 80-column cartridge, however, the final product will be a case that plugs into the serial port.

There was an array of new software including a computer chess program, sophisticated animation software, and a $3,000 Computer Aided Design system for the 1040ST suitable for professional architects and interior designers. Antic saw a variety of C development tools, editors, and loads of music and entertainment software.

Atari User magazine claimed that the Atari Computer Show, March 5 at the Novotel, London was the first Atari-specific exhibition ever. Antic was among 50 booths dedicated to Atari ST, XL and XE. Over 100 new products were unveiled and according to Atari User magazine, aproximately two thirds of the products on display were for the 8-bit Atari computers. However, most of those products were aimed at the U.K. market, such as Atari's release of the XC11, a replacement for the 1010 cassette deck to be bundled with the 130XE.

Computer Concepts from Hempstead, England showed a preliminary version of what Antic Marketing Director Gary Yost calls "the fastest BASIC I've seen on any machine." This remarkable ST BASIC supports in-line assembly code and key words for every GEM function call. It retails for less than $100 in cartridge form, and should be available in the early Fall.

Software Punch of Liverpool showed a small plug-in card for the ST that gives it two RS-232 ports and sells for about 50 British pounds. The software house is working on an Ethernet-compatible network of cables that allow ST computers to share information.

For three solid days, Jeff Minter, the wild-haired, 23-year-old president of Llamasoft demonstrated his creation, the Colourspace light synthesizer. A BARCO video projection system beamed his pulsating kaleidoscopic images on an 8-foot diagonal screen. Jeff's mum was staffing the booth, selling his ST Colourspace to eager crowds. The $29.95 program is available in the U.S. through Apex Distribution in Boston, Mass.

Recently Minter rented London's Baker planetarium to demonstrate Colourspace to the press. Not surprisingly, in the Colourspace mannual, he cites as his influences, "Pink Floyd, Rush and Laserium." (A popular laser light show that appears in planetariums.)

Metacomco will port a full implementation of Cambridge LISP to the ST and is aiming for a Fall release of the promised product.

Supra Corp. of Albany, Oregon was showing their 20 megabyte hard disk. (It should be available from local retailers in the near future). The $1,000 price seems a bit steep, but it is reportedly three times faster than the not-yet-available Atari hard disk. John Wiley, President of Supra, showed Antic a 60 megabyte hard disk prototype and hinted about a future streaming tape backup.

Mirrorsoft announced Fleet Street Editor, a word processing and graphics page layout program that functions like Springboard's Newsroom on the Apple II, but produces "professional level" desktop publishing and photocomposition on the ST. Look for Fleet Street Editor to hit the U.S. this summer. Microdeal announced Disk-Help, a $29.95 disk recovery program.

Miracle Technology Ltd. of England was showing Multi-Viewterm/Datatari, an 8-bit communications program and serial interface capable of accessing graphic-based videotext, electronic mail, and telex. The interface is equipped with a 25-way plug to fit several modems.

TRANS-ATLANTIC SOFTWARE

Perhaps the most significant trend in software is the increasing communication between European and American software houses. Much of the software displayed was American product brought to the U.K. under license or by aggressive dealers. For example, the United States-based Michtron linked up with the United Kingdom firm of Microdeal to distribute Timebandit and Mi-Term in Europe. Likewise, U.S.-based distributors were searching for European software to bring back to the states.

The ST is already cracking the European education market. Universities are adopting the ST as the machine of choice. Fortran 77, long a standard in universities, is finished from two companies -- Philon of New York and Prospero in the U.K. With GEM bindings included, the Prospero version should retail for about $150. Fortran in one standard or another has been around since the late '50s and as a result a library of Public domain Fortran-compatible software for engineering applications is already available.

At the current exchange rate, the Apple Macintosh costs $4,000 in the U.K. Not suprisingly, the ST is eating it up. Atari is holding the price of ST to roughly the U.S. equivalent. European programmers and dealers were quick to recognize the ST's incredible price/performance ratio.

ANTIC'S EUROPEAN REPORT
PART TWO: WEST GERMANY AND FRANCE
BY GIGI BISSON, ANTIC ASSISTANT EDITOR

HANOVER, WEST GERMANY -- No hype. It's the largest computer trade show in the world. CeBIT -- even grander than the mighty COMDEX. (CeBIT is a German acronym for World Center for Office, Data and Communications Technology.) During the week of March 12, the annual show in Hanover, West Germany boasted 2,100 exhibitors spread throughout 205,000 meters of display area in 13 buildings. Atari Corp. was in building 13, but this time it was a lucky number.

"We've been hearing that the Atari ST is now the largest selling computer in Germany, but I never believed it until I saw this show," says Antic Publisher James Capparell. Every significant hardware and software organization from Atari to IBM was at the Hanover show, including 102 exhibitors from the U.S. and exhibitors from countries that aren't often associated with high technology, such as Czechoslovakia, Yugoslavia, Hungary and South Africa.

Atari Germany spared no expense at their lavish booth. The center of the vast display was almost a restaurant in itself, tempting dealers and retailers with rich food, German Beer and fine chocolates. At the perimeter were nearly 50 third-party developers, including Antic. The exhibitors showed many of the same products that had been unveiled the previous week at an Atari show in London.

At a Hanover press conference, Atari announced the MS/DOS box, 20 megabyte hard disk drive, 1040ST computer and 520ST+ computer. Atari also spoke of their commitment to upward compatiblity, pledging that all future plug-in peripherals and add-ons will be compatible with all versions of ST hardware. Atari engineers are working on a 1,000 X 1,000 pixel color monitor for CAD/CAM purposes, with a companion hardware expansion unit capable of driving that resolution on the ST. Atari hopes to keep the price down to $1,000. Atari Corp.'s $49.95 CP/M operating system emulator software is not yet available in the U.S., but apparently it is already in use in West Germany. (CP/M, one of the earliest microcomputer operating systems, is used by the Osborne and Kaypro computers.)

German computer magazines are already advertising CP/M software for the ST. In 68000er magazine, there are advertisements for Micro Pro Wordstar 3.0 "fur den Atari ST." The software is in ST 3 1/2 inch disk format and requires the CP/M emulator. Another German magazine featured a review of Borland International's Turbo Pascal running on the ST with CP/M emulation.

ANTIC'S EUROPEAN REPORT
PART TWO: WEST GERMANY AND FRANCE
BY GIGI BISSON, ANTIC ASSISTANT EDITOR

HANOVER, WEST GERMANY -- No hype. It's the largest computer trade show in the world. CeBIT -- even grander than the mighty COMDEX. (CeBIT is a German acronym for World Center for Office, Data and Communications Technology.) During the week of March 12, the annual show in Hanover, West Germany boasted 2,100 exhibitors spread throughout 205,000 meters of display area in 13 buildings. Atari Corp. was in building 13, but this time it was a lucky number.

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VIVE LE ATARI

And finally, at the end of an exhausting tour, Paris, for the first Atari-exclusive show ever held in France. The show featured 50 developers, most were French.

In France, Antic saw some fantastic artwork created with DEGAS and NEOchrome, and hopes to make arrangements with the artists to publish this work in future issues of Antic. But the star of the show was a professional architectural CAD-CAM system from a Netherlands firm.

Andromeda Software, a Hungarian firm with offices in the United States, showed two graphic tools fro the ST, The Animator, a graphic animation package and a picture processor. Andromeda is also working on ST versions of the classic Atari arcade games Missile Command, Battlezone and Millipede.

The trip verified both Atari's commitment to worldwide ST marketing, and the world's commitment to Atari. "Everywhere we went in Europe, I was surprised to meet Antic readers with complimentary things to say," says Antic publisher Capparell. "Antic and Atari have friends around the world."

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